STAFF REPORT TO THE COMMISSION

February 2, 2006

SUBJECT: Assessment of Utilities' Electric Reliability

SUMMARY:

This report presents Staff's assessments of the 2004 reliability reports and reliability performance of Commonwealth Edison ("ComEd"), Central Illinois Light Company ("AmerenCILCO"), Central Illinois Power Company ("AmerenCIPS"), Illinois Power Company ("AmerenIP"), Union Electric Company ("AmerenUE"), Interstate Power and Light ("IP&L"), South Beloit Water, Gas, and Electric Company ("SBWGE"), Mid-American Energy Company ("MEC"), and Mt. Carmel Public Utility Company ("Mt. Carmel") and requests that the Commission either accept or modify the assessment reports and file them with the Chief Clerk as required by 83 Ill. Adm. Code 411.140(a). Staff's assessments are attached to this report.

The overall reliability of the nine electric utilities remained steady in 2004 when compared to 2003 results. Based on the average system-wide reliability indices, the overall system average of interruption frequency ("SAIFI") went down slightly (improved) from 1.62 in 2003 to 1.50 in 2004, and the overall system average interruption duration ("CAIDI") went up slightly (worsened) from 160.2 (minutes) in 2003 to 164.9 (minutes) in 2004.

The findings below by utility list the major Staff recommendations for each of the nine utilities investigated. The major recommendations that applied to almost all nine utilities were that they should be more proactive in investigating distribution lines and repairing identified problems, and that they should do whatever is necessary to maintain their tree trimming cycle to comply with National Electric Safety Code ("NESC") Rule 218.

BACKGROUND:

83 Ill. Adm. Code 411 (Part 411) defines electric reliability requirements for Illinois electric utilities. Section 411.140(a) states "Beginning in the year 1999 and at least every three years thereafter, the Commission shall assess the annual report of each jurisdictional entity and evaluate its reliability performance." This section also defines key elements of the evaluation, stating, "The Commission evaluation shall:

A) Assess the jurisdictional entity's historical performance relative to established reliability targets.

B) Identify trends in the jurisdictional entity's reliability performance.

C) Evaluate the jurisdictional entity's plan to maintain or improve reliability.

D) Include specific identification, assessment, and recommendations pertaining to any potential reliability problems and risks that the Commission has identified as a result of its evaluation.

E) Include a review of the jurisdictional entity's implementation of its plan for the previous reporting period."

On or about June 1, 2005, all electric utilities identified above filed their annual reliability reports for calendar year 2004 pursuant to Part 411.

To comply with Part 411, staff engineers reviewed the utility reliability reports for compliance with Part 411 and assessed the reports and reliability performance according to the criteria listed above and in Section 411.140. Staff also sent data requests to the utilities seeking additional information.

The Commission should be aware that the attached reports include information from the responses to Staff's data requests. Information from responses to Staff data requests is not now public information, but by releasing these reports, this information will become public. However, all utilities have indicated that the information contained in these reports is not confidential and can be released to the public.

Major Findings: ComEd

The assessment of ComEd's 2004 reliability report and performance has three Staff recommendations.

- Since the spring of 2000, ComEd has claimed to be on a four-year tree trimming cycle. Staff's field observations indicate that much has improved since that time, but potential remains for improvement in ComEd's vegetation management program. ComEd should continue improving its vegetation management program and explain in its next year's reliability report what changes it has made to that program.

- ComEd should continue its focus on improving its customer service. In each successive year since 2000, ComEd has shown significant improvement in customer satisfaction surveys.

- ComEd should inspect insulating oil levels as appropriate and make adjustments as necessary. Staff inspections found low oil or leaking oil problems in substation devices. Staff's concern is that any amount of oil lost via a small leak from a low volume device such as a transformer bushing, if not timely found and corrected, is a reliability threat because the risk of catastrophic failure increases when air replaces the oil.

Major Findings: AmerenCILCO

The assessment of AmerenCILCO's 2004 reliability report and performance has three Staff recommendations; AmerenCILCO should perform more frequent inspections, they should strive to reduce the number and duration of underground outages, and they should better trim trees.

- AmerenCILCO should more frequently inspect and more promptly maintain its distribution circuits, and should include the source substation when conducting its distribution circuit inspections.
- AmerenCILCO should strive to reduce its CAIDI by reducing the number and duration of underground equipment-related interruptions.
- AmerenCILCO should insist its tree trimming personnel clear trees away from its power lines in such a manner that the trees will not contact the power lines prior to getting trimmed again.

Major Findings: AmerenCIPS

The AmerenCIPS assessment has seven Staff recommendations. The most serious three of these recommendations are that AmerenCIPS should maintain a four-year (minimum) tree trimming cycle, should correct known problems and perform expected preventive tasks, and should continue to add devices on its circuits to improve reliability.

- AmerenCIPS should perform field inspections of all circuits on a regular basis and correct the problems found which can significantly affect reliability or public safety.
- AmerenCIPS should do whatever is necessary to maintain a four-year (minimum) tree trimming cycle that is in compliance with NESC Rule 218 throughout its service territory.
- To improve reliability, AmerenCIPS should investigate all of the problems noted during Staff's inspections of worst performing and other circuits and take appropriate remedial actions, should follow through with its action plans, and perform field inspections of all circuits on a regular basis.
- AmerenCIPS should continue to add animal guards and tap fuses on its distribution circuits to minimize interruptions and the number of customers affected when interruptions occur and install additional lightning protection.

Major Findings: AmerenIP

The AmerenIP assessment has seven Staff recommendations. The most serious three of these recommendations are that AmerenIP actively find and correct NESC violations,

investigate and correct increasing hardware problems, and maintain a four-year (minimum) tree trimming cycle.

- AmerenIP should take a more proactive role in finding and addressing NESC violations throughout its electric system and in preventing such occurrences in the first place. Staff discovered fourteen NESC violations on AmerenIP circuits this year, all of which pose risk to service reliability and public safety.

- AmerenIP should investigate its apparently escalating problem with broken spacers on its spacer cable circuits and implement an appropriate action plan to address it.

- AmerenIP should do whatever is necessary to achieve and maintain a four-year (minimum) tree trimming cycle that is in compliance with NESC Rule 218 throughout its service territory.

Major Findings: AmerenUE

All of AmerenUE's Illinois service territory was transferred to AmerenCIPS as of May 2005. With this transfer, AmerenUE ceased to have any electric customers in Illinois and will not be filing future annual reliability report with the Commission.

- The AmerenUE assessment has four Staff recommendations of which the two most serious of these recommendations are that Ameren should review and revise as needed its outage response procedures, and should improve its tree trimming effort.

- AmerenCIPS should examine the outage response procedures used by AmerenUE and attempt to reduce the average duration of interruptions to its customers. AmerenUE again listed an extremely high value for CAIDI during the 2004 calendar year: 278 minutes, or over 4.5 hours.

- Staff inspection of trees found AmerenUE's tree trimming varying significantly from community to community, and a noticeable decline since the last inspections in 2003. AmerenCIPS should investigate the problem areas noted in the report and should resolve all existing tree clearance problems as soon as possible.

Major Findings: IP&L

The IP&L assessment has four Staff recommendations. The most serious two of these recommendations are that IP&L should inspect its circuits more frequently and should improve its vegetation trimming to maintain proper clearances.

- IP&L should inspect its distribution circuits more frequently to find and correct threats to reliable service. Rather than once every ten years, IP&L should inspect its circuits, at a minimum, approximately halfway through each tree trimming cycle.

- IP&L should emphasize with its tree trimmers the need to keep trees clear of the power lines for the entire time between tree trimming cycles, or return to trim specific trees between cycles.

Major Findings: MEC

Staff made four recommendations in its assessment of MEC's Reliability Report and reliability performance. The three most serious of these recommendations are that MEC should be more proactive with its circuit inspections and remedial work, should improve how quickly corrective work is performed for customers that suffer multiple interruptions, and should install animal guards on more of its transformers.

- MEC should be more proactive with its circuit inspections and remedial work. More effective inspections of its overhead distribution facilities would provide MEC an opportunity to find and correct reliability threats prior to interruption occurrence.
- MEC should develop procedures to accelerate its remedial actions when customer(s) experience multiple interruptions, especially in those cases where the customer(s) have experienced more than 6 interruptions during the same calendar year.
- MEC should install animal protection on more distribution transformers. For example, when a tap fuse blows due to squirrel activity at a distribution transformer, MEC should consider installing animal protection on multiple transformers on the tap; not just the transformer where the squirrel is found.

Major Findings: Mt. Carmel

The Mt. Carmel assessment has six Staff recommendations of which the two most serious of these recommendations is that Mt. Carmel should achieve and maintain its three year tree trimming cycle, and that they should attempt to reduce the length of its three longest circuits.

- Mt. Carmel elected to trim its trees on a three-year cycle, it should do whatever is necessary to achieve and maintain that three-year tree trimming cycle in compliance with NESC Rule 218 throughout its service territory. Mt. Carmel should verify it has budgeted sufficient funds to obtain and maintain a three year tree trimming cycle.

- Mt. Carmel should investigate reducing the length of the three long circuits on their system. Reduction in circuit length could be accomplished by dividing the circuits, transferring load to shorter urban circuits or by adding sectionalizing equipment to the circuit.

Major Findings: SBWGE

The assessment of SBWGE's 2004 Reliability Report and reliability performance has three Staff recommendations. The most serious two of these recommendations are that

SBWGE should investigate and repair all structural problems, and should investigate and correct problems found during inspections.

- Staff's field inspections in May 2005 revealed several deteriorated poles in the circuits inspected, some evidence of lightning damage, but only a few other problems. SBWGE needs to investigate all of the structural problems noted and take appropriate remedial actions addressing any problems on those circuits, whether or not noted by Staff, which can significantly affect service reliability or public safety.

- SBWGE should investigate all of the problems noted during Staff's inspections of worst performing and other circuits and take appropriate remedial actions addressing any problems on those circuits.

PROPOSAL:

Staff asks the Commission to accept or modify the attached Staff Reliability Assessment Reports of Commonwealth Edison, Central Illinois Light Company, Central Illinois Power Company, Illinois Power Company, Union Electric Company, Interstate Power and Light, South Beloit Water, Gas, and Electric Company, MidAmerican Energy Company, and Mt. Carmel Public Utility Company and file them with the Chief Clerk.

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